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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/051,011	01/22/2002	Guerin Dubose Rife	RIF-114	7788

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EXAMINER

DUONG, THANH P

ART UNIT PAPER NUMBER

3711

DATE MAILED: 01/28/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/051,011

Applicant(s)

RIFE, GUERIN DUBOSE

Examiner

Tom P Duong

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED. (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 12 November 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 61-63,66,68,71 and 72 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 61-63,66,68,71 and 72 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.  
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

### Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

1. Claim 68 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In claim 68, the limitation “ a bottom edge of said upper portion is defined by a ledge coincident with a top edge...” is indefinite and inaccurate. Herein, a ledge is best understood to be the cavity upper side wall 130 coincident with the interface 123. (See Applicant's disclosure page 9, lines 20-22).

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 61-63, 66, 68 and 71-72 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Teramoto et al. (4,645,207). Teramoto et al. discloses a set golf club irons (Figures 1- 2) including a hosel portion to receive a shaft (Figure 2), heel, toe, striking surface, top ridge surface, and bottom sole surface, wherein a rear surface having upper portion with a ledge and lower portion extending entirely across from heel to toe; said upper portion

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extending downwardly toward bottom sole approximately midway between top ridge and bottom sole; lower portion extending upwardly toward top ridge approximately midway between bottom sole and top ridge; said lower portion including an elongated cavity solely in the lower portion of the rear surface; and ball striking face that is thinner than the thickness between the non-cavity upper portion and the ball striking face (Figures 4a). Note, Teramoto discloses that the volume of hollow portion or cavity gradually decreases from long iron to short iron and the sole width gradually increased from the short iron to the long iron (Col. 2, lines 18-35). Thus, it is inherent and obvious that a long iron has an upper portion extending downwardly less distance than a shorter iron due its larger cavity. Likewise, a shorter iron has a smaller volume of cavity in the lower portion which inherently provides an upper portion extending downwardly with greater distance toward the lower portion.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 67 and 69-70 are rejected under 35 U.S.C. 103(a) as being unpatentable over Teramoto '207 in view of Gorman '835 and Antonious '924. Regarding claims 67 and 70, Teramoto '207 does not show a mass in the lower portion of the rear surface. Gorman '835 teaches a periphery mass 22 formed on the lower portion of the rear

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surface (Abstract) to improve weight distribution in the club head which improves accuracy and flight distance (Col. 1, lines 16- 21). Antonious '924 also teaches weights are formed on the rear club face extending from heel to toe portion to improve weight distribution at the bottom portion of the club head (Col. 1, lines 5-68). Thus, it would have been obvious in view of Gorman and Antonious to fabricate the club head of Teramoto to include weights or mass in the lower portion of the rear surface as taught by Gorman and Antonious in order to further improving weight distribution in the lower portion of the rear surface. Regarding claim 69, it is conventional to provide insert with various specific gravity in the elongated cavity and it would have been obvious to do so here to improve moment of inertia and mass distribution.

### ***Response to Arguments***

Applicant's arguments filed 11/12/03 have been fully considered but they are not persuasive. In response to Applicant argument with respect to Teramoto's reference, "there is no description or showing in any of the embodiments that the cavity is elongated, as only cross-sectional views in a single plane." Examiner agrees that other showing views of the rear cavity such as top view , side view, and etc. in Teramoto's reference are helpful just as disclosed in USPN 5,643,112 and USPN 5,120,062, but not necessarily required by Teramoto's reference in order for one skilled in the art to comprehend. Teramoto discloses that a shorter iron has different rear cavity structure than a long iron as described above. Applicant also mentioned that the "Applicant's claims contain no limitations relating to the size of the cavity relative to the loft angle of

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a particular iron in a set.” It is known in the art that typically a shorter iron has a higher loft angle than a longer iron and such features are also discussed in Teramoto’s reference, but Teramoto also discuss the difference in the size of the cavity and the sole’s width for a shorter versus a longer iron (See Abstract).

### ***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tom P Duong whose telephone number is (703) 305-4559. The examiner can normally be reached on 8:00AM - 4:30PM.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Greg Vidovich can be reached on (703) 308-1513. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1148.

Tom Duong

  
GREGORY VIDOVICH  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 3700